11 March 1959

## PROJECT CORONA

5X1	1. The original outline of the CORONA Project (Document No. COR-0013) was submitted for approval on 15 April 1958. As then planned
	it called for twelve flights of the CORONA vehicle during the calendar year 1959. The total separately accountable cost was estimated as slightly over
X1	to be provided by ARPA
	for second stage vehicles and to be funded by the Central
	Intelligence Agency for the classified payload.
	2. Under date of 8 August 1958 a report on this Project was sub-
	mitted which pointed out that the original cost estimate was incomplete on
	two grounds. First, it contained no allowance for the Thor boosters (first
	stage vehicles) on the assumption that these would be furnished by the Air
	Force. Second, it included none of the costs that would be incurred with
	either four engineering flights to be carried out before the first CORONA
	launch as part of the development of the CORONA vehicle or of three bio-
	medical flights planned in part for cover purposes. This report gave a
	revised figure of as the cost of the CORONA flights
	including Thors but still excluding the associated flights referred to above.
	3. Rather extensive discussions took place in the early autumn
	of 1958 concerning the cost of the whole program, since christened the
	DISCOVERY program, in the context of the ARPA budget for FY-1959. In
	the course of these discussions it appeared that certain cost estimates had
	to be revised upward. Moreover, it appeared that if an appropriate share
	of development and facilities costs were allocated to CORONA the total cost
	would come to although it was
	recognized that the allocation of these overhead items between related
	programs is essentially arbitrary. When this cost study was completed in
	October, it still appeared that the entire DISCOVERY program of nineteen
	flights (twelve CORONA plus four engineering plus three biomedical) could
	be funded within existing budgets.
	4. During late autumn of 1958, a further study was made of both

NRO review(s) completed.

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the DISCOVERY and SENTRY (WS-117L) programs by ARPA and the Air Force, In November, decisions were made concerning the ARPA FY-1960

budget. As a result of these revisions, and in the light of the program review just concluded, the decision was made by ARPA to cancel four of the twelve CORONA flights and two of the three biomedical flights and thus to reduce the DISCOVERY program from nineteen to thirteen flights. This decision was influenced by the expectation that the Air Force would be prepared to fund additional flights using CORONA vehicles and payloads which would be scheduled late in CY-1959 and in CY-1960, so that the ARPA cut would be more than made good.

- 5. Under these circumstances, production schedules were left unchanged and development continued at full speed pending further studies of (a) intelligence requirements during 1959 and 1960, (b) the effects of modifications in the SENTRY program, which contemplates the use of an Atlas-boosted vehicle, larger payload, and more sophisticated equipment, and (c) the availability of funds. These investigations led to the following conclusions:
  - a. There is a high priority requirement for photographic reconnaissance of the USSR both in 1959 and in 1960 by numbers of flights sufficient enough to give complete coverage twice in each year. Because of the prevalence of cloud cover, twice over coverage will be required to give even moderately complete photography of the more important areas. The most important single objective is to require further evidence on the status of the ICBM program during the phase when construction of launch sites may be expected to be in progress.
  - b. The SENTRY program could not be accelerated to provide the required coverage in 1960.
  - c. The extended CORONA program can be financed within approved Air Force and Department of Defense budgets.
- 6. Accordingly it is proposed that the presently reduced CORONA program of eight flights in 1959 be augmented by twelve additional flights, four to be restored in 1959, and eight to be conducted in 1960. On this basis there will be a total of twenty CORONA flights. The requirement for twelve in 1959 as against eight in 1960 reflects an anticipated improvement in systems reliability and performance. The whole DISCOVERY series will

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include in addition to the twenty CORONA flights, four engineering flights as eriginally planned (one of which has aborted and a second carried out with nearly full success) and one biomedical flight which is largely for cover purposes.

7. The proposed restoration of four flights in 1959 and an addition of eight flights in 1960 will require additional funding

of additional cost by purpose and funding agency is shown on the attached table. In accordance with the decision made at the inception of CORONA, all of these additional funds, with the possible exception of the cost of additional payloads, will be transferred to ARPA which will authorize procurement by the Ballistic Missile Division, ARDC. Procurement of additional payloads may be undertaken by CIA (as with the initial CORONA program) or by BMD depending on the requirement for security. BMD will act as executive agent for the DOD and the CIA in the operational phase including launching, tracking, and recovery operations.

8. The maintenance of security, that is effective concealment of the true purpose of these missile flights, will be exceedingly difficult at best and will give rise to serious problems. The DISCOVERY series has been described as a developmental activity. Specific estensible missions are being defined for each flight and data will be accumulated ostensibly resulting from the DISCOVERY flights to be furnished on an unclassified basis or with low classification to interested persons. No matter how carefully cover explanations are developed and supported, however, it is impossible to prevent speculation in the technical press and by Communist governments to the effect that the DISCOVERY flights involve reconsissance of some kind. Accordingly, even if security is successfully preserved, that is any unauthorized disclosure by persons witting of the true purpose of DISCOVERY is avoided, the cover for this operation may be eroded. If it is desired to preserve the cover and deny the true purpose of the 1960 flights as well as of those scheduled for 1959, a decision to this effect should be made immediately so that administrative and security procedures may be designed with this end in view.

1 Attachment (1 page)

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